

WHAT ARE CARBON CREDITS REALLY?

And is it Time for
Your Building to
Invest?

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Global warming often feels very removed from our day-to-day. It's something few of us can fully grasp. And it's only when there are crippling heatwaves or wildfires that we understand why global warming is more than some well-meaning battle cry. But this is probably the last thing you worry about. And for good reason.

It's the same reason ambitious climate goals like **limiting global average temperature to 2.7 degrees Fahrenheit** (1.5 C) mean little to most of us. Who can really imagine what it would feel like to live in a 2.7 F world? We simply can't imagine the reality and seriousness of this. And that's the problem with any talk of global warming.

The good news is that this is changing. It has to. With summer's extreme weather events still fresh in our minds, we're starting to get a very real sense of just how uninhabitable and unwelcoming 2.7 F really could be. And that's where commercial buildings come in.

It's estimated that commercial buildings are responsible for at least **16% of all emissions in the U.S.** 2.7 F is now so much more than an ambitious climate goal. It's a powerful reminder that we're in this together. But what does that really mean? What practical steps can we take to reduce our carbon footprint, and what do carbon credits have to do with all this?

Your Building's [Carbon] Footprint & Global Warming

All industries must decarbonize to meet the 2.7 F goals outlined in the [Paris Agreement](#). That includes commercial buildings which emit an estimated [39% of all global greenhouse gas](#) and are responsible for [40% of global energy consumption](#). And with heating and cooling demands predicted to increase in the coming years, the role of buildings in transitioning to a carbon-neutral world is crucial. In fact, commercial buildings are the foundation of an energy-efficient future.

Buildings' carbon reduction efforts will depend on their approach to energy efficiency, adoption of renewable energy, and other initiatives. While energy efficiency doesn't always directly correlate with carbon reduction, it's an essential part of any decarbonization efforts. What's clear is that to reduce their carbon footprint, commercial buildings will have to adopt new technologies. And fast.

Such technology will help with things like optimizing lighting and heating, ventilation and cooling systems (HVAC) systems to ensure buildings consume energy efficiently. These efforts will help reduce carbon emissions, but are they enough to get us closer to net-zero? Yes, but there is still a lot more to be done to fully reduce emissions.

There's Net-Zero. And Then There Are Carbon Credits

Net-zero is an admirable goal, but for many industries (especially commercial buildings), this may be just that. A goal. Because the reality is that emissions happen. And despite best efforts and a commitment to decarbonization, some carbon emissions are unavoidable.

Many industries will fall short of their emissions goals. A good example of this is something like cement which, when produced at scale, causes a chemical reaction. Carbon emissions are unavoidable by-products of this process. And that's where carbon credits come in.

But what is a carbon credit really? The easiest way to understand **carbon credits is as a tradeable certificate**. This gives the holder permission to emit greenhouse gas and other emissions over a certain period. One carbon credit is equivalent to 1 metric tonne of carbon dioxide. The idea is that for every tonne of CO₂ emitted, another tonne is captured elsewhere. In other words, carbon credits are a clever way for companies and countries to reduce their carbon footprint without actually reducing their emissions.

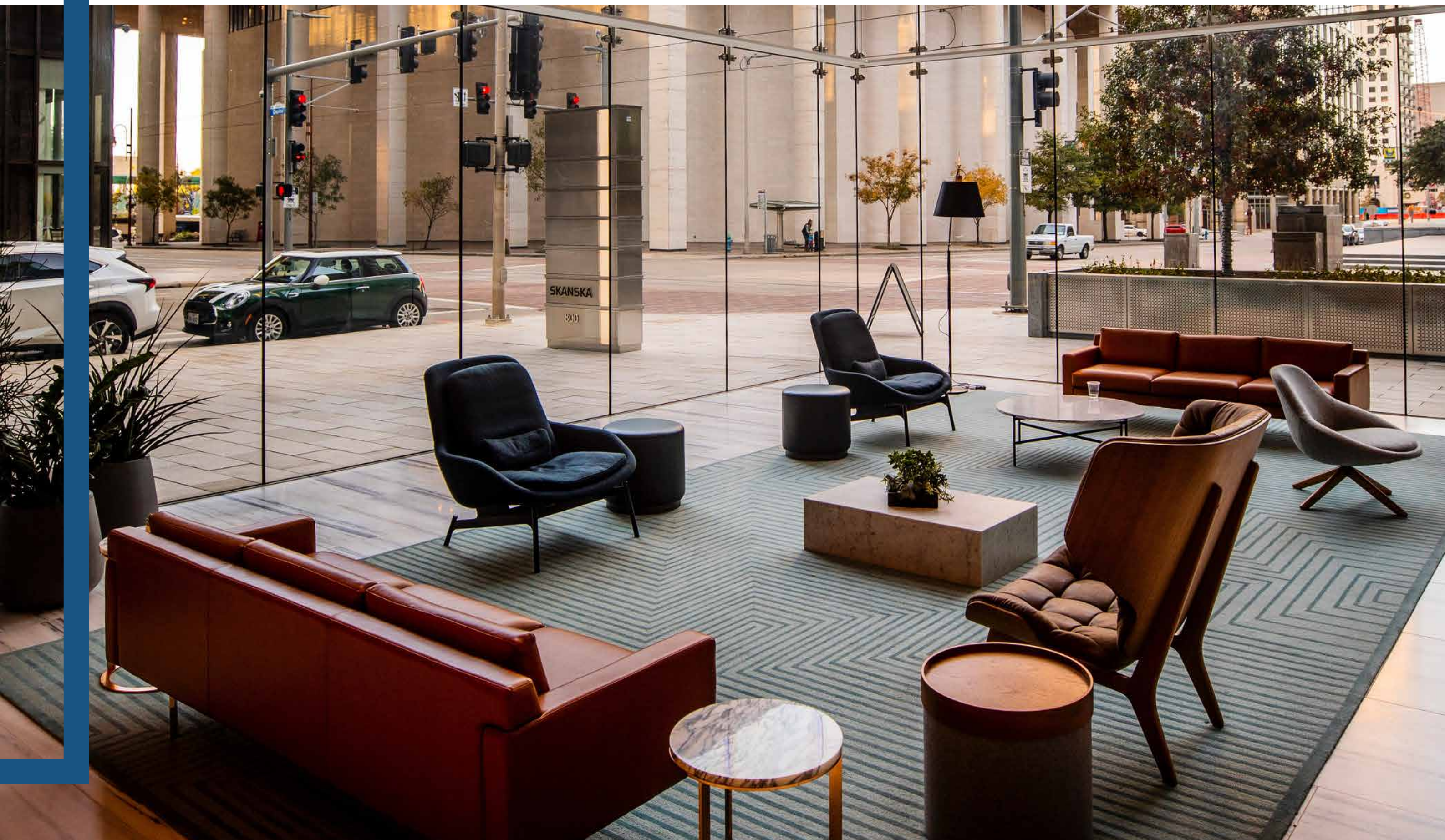


Carbon credits were formalized as part of the [Kyoto Protocol](#), which outlines greenhouse quotas for each country. Countries then assign limits and caps to different industries to regulate emissions. This forms the basis of the carbon trading system where companies can buy or sell the right to emit CO2.

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"Carbon credits are a truly ingenious way of thinking about decarbonization. The problem is that we can't rely on them alone. What we need now more than ever is innovative climate technology to make realizing climate change goals possible. But more than that, we have to embrace technology if we're going to sidestep the worst effects of global warming," Iftach Cohen, Airkind Co-Founder & CEO.

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How do Carbon Credits Actually Work?

Carbon credits make sense in theory. But how do they really work? Well - the thinking is that if a company wants to reduce their emissions, it can do so by paying for emissions to be cut or captured somewhere else in the world through, for example, planting a forest. Typically credits are created through forestry or other agricultural practices, but they can also be generated from any practice that reduces, avoids, destroys or captures carbon emissions.

As an example, let's say company A emits less than its target amount of CO₂, resulting in a surplus of carbon credit. These can then be sold to another company that has emitted more than its targeted amount (Company B). In this way, company B can avoid heavy fines and theoretically reduces its carbon footprint.

Generally, carbon credits are traded on an exchange platform, almost like a carbon stock exchange.

Carbon credits are often very costly to purchase, so it's often easier for companies to just pay their fines rather than fork out for credits. There's often a lack of regulation regarding carbon credits, which means their pricing and value tend to fluctuate. And yet the carbon market seems to be exploding, with research from [**McKinsey**](#) indicating that demand for these credits could reach up to 1.5 to 2.0 gigatons of carbon dioxide (GtCO₂) by 2030 and up to 7 to 13 GtCO₂ by 2050. This is estimated to be a market size of at least \$30 billion by 2030.

Putting a Price on Carbon. And Other Impossible Feats

The idea that one can actually assign a value to carbon is tricky and somewhat controversial. So much so that the U.S. doesn't have a federal or local cap-and-trade market for greenhouse gases. And while there has been a lot of talk about globalizing the carbon market, we still have a long way to go.

This was one of the main issues at COP26, where carbon trading took centre stage. COP26 delegates agreed on new rules to regulate carbon trading, making it easier for countries that have exceeded their carbon quota to purchase credits from other countries. And yet even in the face of all this progress, the final framework still has to be developed. One of the biggest stumbling blocks is that there's often a discrepancy between prices on the voluntary market and regulated systems. The former tend to be much lower.

A Flimsy Bandaid For a Much Bigger Issue?

The question remains: How effective are carbon credits really? For some corporations, carbon credits are the ultimate get out of jail card. They enable them to continue polluting as long as they can afford the credits. And so, instead of fixing the problem, they're seen to be band-aids that could actually make things worse in the long run.

The reality is that what carbon credits do is offset emissions; they don't really reduce them. This often leads to companies claiming they're eco-friendly and carbon neutral when that couldn't be further from the truth. When a company purchases carbon credits, CO2 doesn't magically disappear. In fact, the relationship between carbon emissions and trees is complicated and worth exploring.

While trees absorb and store CO2, this is only temporary. Any accumulated CO2 gets released back into the atmosphere when trees are destroyed. In other words, trees simply hide the CO2 for a while. But trees don't solve the problem long term. The crazy thing is that carbon dioxide is estimated to remain in the atmosphere for about 100 years. This means that for carbon forestry to have an impact, the trees need to stay intact for at least a century.





Consider the Bootleg fire in Oregon, which in 2021 destroyed 400,000 acres of forest. As these trees went up in smoke, so did the thousands of carbon credits that corporations like B.P. and Microsoft had bought. Or how in **2014, FIFA** bought carbon credits to fulfil a sustainability pledge it made before the World Cup in Brazil. Soon after, the trees were cut down. In 2018 the project was suspended after more trees were logged than all the credits sold.

Then there's California, where it's estimated that even though between **20 million and 39 million carbon credits** have been generated, they haven't amounted to real carbon savings. The sad reality is that when it comes to carbon credits, oftentimes, the math just doesn't add up.

What Does All This Mean For Your Building?

Carbon emissions are becoming impossible to ignore. And as more legislation is passed to prevent exceeding the 2.7 F climate goal, more and more commercial buildings will have to find a way to reduce their emissions or suffer the consequences. This is already starting to happen.

Consider [Local Law 97 \(LL97\)](#) which was passed in 2019 in New York in an attempt to reduce commercial buildings' carbon emissions. This is the first law of its kind and it's expected to cause shockwaves across the US. LL97 places carbon caps on commercial buildings in New York that are larger than 25,000 square feet. The law is expected to start in 2024 and will become stricter over time. The aim of this law is to reduce carbon emissions by [80% by 2050](#).

As part of this law, carbon credits and greenhouse gas offsets (like credits for planting trees) will be allowed but the details haven't yet been finalized. LL97 isn't here yet, but it's a small taste of what's to come.

But it's not all doom, gloom and regulation. Companies that embrace climate technology and reduce their emissions can avoid heavy fines altogether. Some companies have even started to benefit from selling their carbon credits.



Tesla is perhaps the best example of this. The clean energy giant reported a pretax income of \$533 million in the first quarter of 2021, of which \$518 million was from emissions credits. This means that Tesla actually made more from selling carbon credits than from their electric vehicles (EVs). But how is this possible?

In an attempt to reduce emissions, governments worldwide have started awarding credits to car manufacturers that develop EVs. Since Tesla only manufactures EVs, it can collect carbon credits which it then sells to manufacturers that fail to meet regulatory requirements.

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"Increasingly, there's awareness of the importance of decarbonization. But what we're seeing is that buildings owners are often too overwhelmed to take adequate and proactive steps to really reduce their emissions. The hope is that new legislation and the rise of climate tech will change this," Daniel Heifetz, Airkind Co-Founder & CTO.

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A Climate Intelligent Approach to Carbon Reduction

Climate tech continues to evolve and could prove to be a real game-changer as the world struggles to curb carbon emissions. All this innovation is making it easier to reduce carbon emissions without relying solely on carbon credits. Or as Tesla demonstrates, climate tech could help companies cash in on carbon credits. Big time.

While net-zero may be out of reach, there's still a lot that can be done to manage emissions without causing more harm. Now is the time to get smart and adopt a climate intelligent approach to carbon reduction and carbon credits.



The Fineprint: What All This Means for You.

Carbon credits have their place. But as the reality of global warming hits home for many of us, we have to do better. We'll never meet climate change goals by relying solely on carbon credits. It's time to get serious and go all-in on climate change technology.



Want to learn more about how Airkind's [Climate Intelligence Platform](#) can help you reduce emissions? [Schedule a demo.](#)